National Aeronautics and Space Administration

AEROSPACE Frontiers

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2005 NASA Honor Awards presented

NASA Astronaut John Bennett Herrington assisted in bestowing 40 medals—the Agency's highest awards—to employees during the 2005 Honor Awards Ceremony on July 21.

Exceptional Achievement Medal

Dr. Paul A. Bartolotta
For exceptional achievement in fostering effective, visible, multiagency, and multi-industry partnerships that advanced NASA's mission and contributed to high-speed combined-cycle turbine engine state of the art

Dr. Kelly S. Carney
For the development of the constitutive material models and analytical techniques used in the Columbia Accident Investigation and the space shuttle Return to Flight recertification

Loretta M. Shaw
For dedicated leadership in process innovation, product excellence, and responsiveness to NASA's transformational competitive actions in exploration acquisition activities

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Senator Glenn visits with summer interns

BY DOREEN B. ZUDELL

Senator John Glenn's belief in the value of NASA and in nurturing the next generation of explorers was undeniable during a visit to his namesake Center on July 6.

"We need to get back to what made this country great," he said, with emphasis on equal education for everyone and teachers who encourage inquiry into the unknown.

Through an invitation from student research associates of the NASA Glenn Academy, Senator Glenn held an informal dialogue with those students, as well as with interns from the Undergraduate Student Research Program; Lewis' Educational and Research Collaborative Internship Program (LERCIP) college, scholars, and teachers; and LERCIP high school interns (Engineering Technology Program, NASA Plus, and NASA SHARP).

During lunch with NASA Glenn Academy research associates (interns viewed as potential leaders of tomorrow) Senator Glenn, accompanied by his wife, Annie, invited youth to share what

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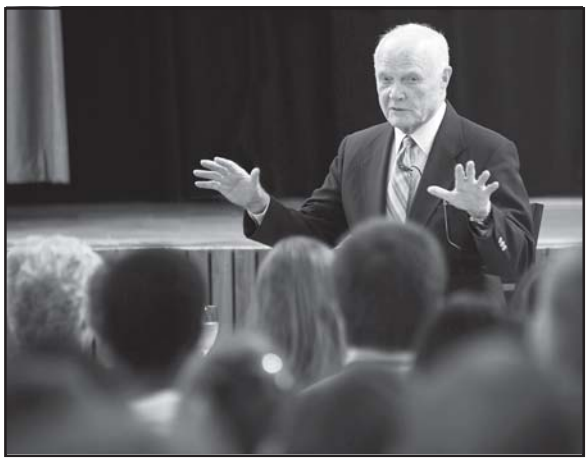
C-2005-979 Photo by Marvin Smith



Senator Glenn answered a variety of questions from summer interns and teachers during his visit.

Inside

Reactor Facility decommissioning update

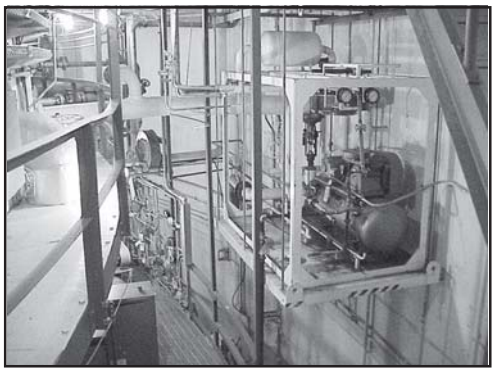
NASA is proceeding with decommissioning the closed Reactor Facility at Plum Brook Station. With public safety as its number one priority, NASA has selected the safest and most thorough approach to reduce residual radiation levels so that the Reactor Facility site will be safe enough to use for any purpose in the future.

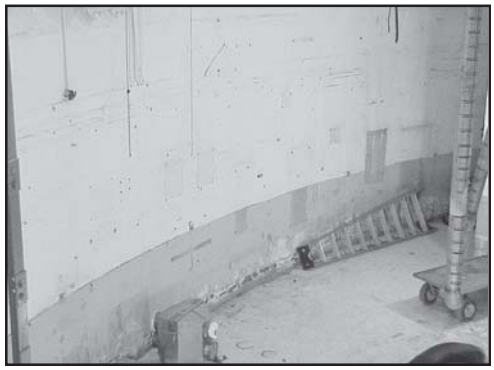
In recent months, Plum Brook Station's Reactor Facility Decommissioning Project might be compared to an archeological dig, as tons of fixed equipment were removed from below ground level.

In May, workers finished fixed equipment removal (FER) in the containment vessel, the largest concrete structure formerly home to the reactor, and to quadrants and canals once filled with water and drained when the Reactor Facility was shut down in 1973. They also removed electrical and plumbing systems in another containment vessel area, the annulus, which extends from ground level to 25 feet below grade. The annulus contained many of the control systems once used in the reactor experiments.

In June, FER was completed in the hot retention area, which consisted of an earthen berm atop a concrete vault containing eight steel tanks located 90 percent underground to a depth of 25 feet. When the reactor was operational, the tanks held contaminated water until radiation levels had been sufficiently reduced and it could be pumped into the cold retention area (CRA).

NASA will soon begin work in the CRA, where according to Senior Project Engineer Keith Peecook, groundwater was found and sampled to assure it was clean. The groundwater will be pumped into a clean area of the Pentolite Ditch in accordance with discharge limits set by the Ohio Environmental Protection Agency. Once the groundwater is removed, NASA will analyze the concrete to determine what can remain in place, since most of the CRA is located 3 feet below grade. The remaining removal work should be completed by the summer's end. To date, NASA has sent 8 million pounds of low-level radioactive waste (mostly FER) to the Envirocare-licensed disposal facility in Utah. Peecook noted that finishing this task is "a major step forward in completing the decommission project."





Pictured, top, the containment vessel with a variety of fixed equipment prior to cleanup. Pictured below is the same containment vessel after fixed equipment was removed.

For further information on the decommissioning project, visit http://www.grc.nasa.gov/WWW/pbrf/ ◆

Glenn earns 10 Space Act Awards

Ten Glenn-developed technologies were recently selected to receive 2005 NASA Space Act Awards by the NASA Inventions and Contributions Board. Space Act Awards are monetary awards for outstanding scientific or technical contributions sponsored, adopted, supported, or used by NASA that are significant to aeronautics and space activities.

Engine airframe structural system analysis tools
Dr. Charles Lawrence and Dr. Kelly Carney, Structures Division

Fully suspended five axis three-magnetic bearing dynamic spin rig with forced excitation
Carlos Morrison, Andrew Provenza, Dr. Anatole Kurkov, Gerald Montague (U.S. Army), Dr. Kirsten Duffy (UNIT), Oral Mehmed, Dr. Dexter Johnson, and Ralph Jansen (UNIT), Structures Division

COBRA–AHS rolling element bearing design software
J. Poplawski, H. Galatis, S.M. Peters, J.H. Rumbarger, and R. Flower, J.V. Poplawski & Associates

Developing a method of hydroforming dish grids and making spall-resistant anodes for ion thrusters
Bruce Banks, Power and Electrical Propulsion Division

Turbomachinery analysis software
Dr. Roderick Chima and Dr. Meng-Sing Liou, Propulsion Systems Division

Time-Accurate Quias-One Dimensional Reactive Code for Design and Analysis of Gasdynamic-Based Propulsion Systems
Dr. Daniel Paxson, Instrumentation and Controls Division

Software for system controlling a magnetically levitated rotor
Carlos Morrison, Structures Division

Thermal barrier and solid rocket motor joint design
Dr. Bruce Steinetz and Pat Dunlap, Structures Division

Spreadsheet for tracking an evaporating droplet for multiple fuels
Dr. Cecil John Marek, Propulsion Systems Division, and Dr. Ka Heng Liew, Egel Urip, and Song-Lin Yang, Michigan Technological University

Antenna near-field probe station scanner
Dr. Felix Miranda, Dr. Afroz Zaman, Dr. Richard Lee, Philip Barr, and Kevin Lambert (ANLX), Communications Division; and William Darby, Research Testing Division ◆

2005 NASA Honor Awards

Continued from page 1

Bryan K. Smith
For exceptional achievement in the formulation and development of the Jupiter Icy Moons Orbiter Project

Dr. Bruce M. Steinetz
For exceptional contributions to innovative seals research and creating and leading a nationally recognized NASA Seals Research Team

Exceptional Engineering Achievement Medal

Dr. David L. Ellis
For the development of the new copper alloy GRCop-84 for rocket engine applications

Exceptional Service Medal

Kurt S. Blankenship
For sustained excellence in airborne icing research and flight safety educational outreach critical to industry, airlines, and general aviation, both nationally and internationally

Thomas H. Bond
For significant and sustained performance and leadership in icing research as well as exceptional ingenuity in building successful collaborative relationships that have directly improved the safety of the flying public

Amy L. Bower
For significant contributions to the safety, health, and environmental programs at Plum Brook Station

Roger Chamberlin
For significant research contributions, exceptional project management skills, and the implementation of innovative management practices in the NASA Glenn Research Center wind tunnels

Jo Ann Charleston
For outstanding service that has had a pronounced effect upon the educational community as well as the technical and administrative programs at NASA

David M. DeFelice
For outstanding leadership in public outreach for NASA Glenn Research Center

Dr. Edmane Envia
For original contributions to aero-acoustics research and noise prediction methods for turbomachinery

Joseph E. Grady
For exceptional service and commitment to NASA aeronautics programs and leadership in ensuring Glenn engine systems contributions to Agency aircraft noise-reduction objectives

Julie A. Grantier
For sustainable excellence in engineering and systems engineering for major Space Science and Aeronautics programs

Glen M. Horvat
For exemplary technical leadership and vision and integrity in directing, organizing, and implementing the mission analysis efforts for NASA's space and exploration activities in the Systems Analysis Branch

Martha H. Jaskowiak
For preeminent achievements in the development and implementation of ceramic materials in advanced aero-space technologies

Dr. Richard Q. Lee
For sustained performance and outstanding leadership in the research and development of radiofrequency antenna technology in support of NASA's Space Communications Program

Matthew E. Melis
For exceptional leadership and technical contributions to the NASA Glenn Ballistic Impact Team effort supporting the Columbia Accident Investigation and NASA's Return to Flight Program

Continued on page 6

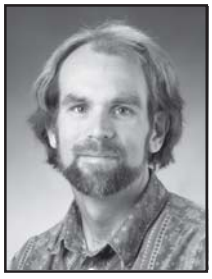

Balasubramaniam


Bartolotta


Blankenship


Bond


Bower


Dr. Carney


Chamberlin


Charleston


Cikanek


DeFelice


Dr. Ellis

News and Events

SEMAA site on reservation

NASA opened the door to a new era in education on June 25 with the dedication of its first Science, Engineering, Mathematics, and Aerospace Academy (SEMAA) Program housed at a Tribal College on a Native American Reservation. SEMAA will provide Native American students located at the Pine Ridge Reservation in Kyle, SD, with an Aerospace Education Laboratory—a state-of-the-art electronically enhanced computerized classroom. Pictured, left to right, are Astronaut John Herrington, the first Native American to walk in space; Glenn's Director of External Programs, John Hairston; and NASA's Chief Education Officer Dr. Adena Williams Loston wearing handmade quilts during an honor ceremony at the SEMAA dedication. For further details on the event, visit http://www.nasa.gov/centers/glenn/education/SEMAA_feature.html.

Photo by Stacy Phelps

Visiting counsel

Glenn's Office of Chief Counsel hosted nearly 100 attorneys and legal support staff who came to Cleveland for the 2005 NASA General Counsel's Conference, which is convened annually for training, collaboration, and networking. Conference highlights included the NASA Legal Team Honor Awards Ceremony where Glenn's Dr. Kaprice Harris was among the honorees as co-editor in a Group Award for *Fine Print,* the Agency's legal newsletter; a luncheon and keynote address by Fred Nance, managing partner of Squires, Sanders and Dempsey, Cleveland; and talks by NASA's Shared Service Center Director Richard Arbuthnot and Inspector General Robert Cobb. Pictured, left to right, Glenn's Eli Naffah congratulates Headquarters' Gary Borda, recipient of NASA Legal's Leadership Award with Wendy Sikora and Glenn Chief Counsel Bill Sikora.

C-2005-957 Photo by Marvin Smith

VIPs view solar sails

NASA Marshall's In-Space Propulsion Technology Project, in collaboration with NASA Glenn, showcased a 20-meter solar sail system in the Space Power Facility of Glenn's Plum Brook Station to NASA officials from across the Agency on July 19. The event allowed program managers and invited guests the opportunity to see a fully deployed sail system. Pictured, left to right, Marshall Deputy Director Dr. John Horack, Glenn Deputy Director Rich Christainsen; Deputy, Space Operations Division Sandra Reehorst, and Special Assistant to Horack, George Xenofos. For more information on the solar cell testing, visit http://www.nasa.gov/centers/glenn/testfacilities/Sailing_on_Sunbeams.html.

Photo courtesy of NASA Marshall

Children explore Center

Photo by Kim de Groh

Glenn's Take Our Children to Work Day on June 30 drew nearly 800 participants, including 472 children. The kickoff to the day's events featured a skit by Wright Brothers impressionists and an exhibit highlighting the Center's diverse cultures coordinated by the event sponsor, the Equal Opportunity Office Advisory Group Committee. Throughout the day, 22 facilities were opened for children to tour and view unique demonstrations of Glenn's world-class research. Activities culminated with an ice cream social and recreational activities at the Picnic Grounds. Pictured: Young visitors at the G-VIS (Graphics and Visualization) GRUVE (Glenn Reconfigurable User-interface and Virtual Reality Exploration) Laboratory experience a full-color panorama of the Martian surface taken by stereo cameras on the Rovers with Dr. Jay Horowitz (seated) as their guide.

Ask the Director

The following question was raised during a NASA leadership video-conference.

During the NASA leadership videoconference of July 5, 2005, NASA Johnson Space Center Director General Howell asked about the difference in the NASA Values included in the revised Strategic Management Handbook and those currently published. His question prompted me to revisit, from my personal perspective, how I view values of an organization.

First, I submit that values are those closely held beliefs people support with thoughts, words, feelings, and most importantly, action. You can't see them, touch them, taste them, or smell them. What we do reflects what we believe. Values are critical, intangible essentials that bring continuity and meaning to an organization. Second, in my humble opinion, values are not principles that come and go with each passing day.

Last, my favorite example of how one organization's values impacted its success is from IBM. At the conception of IBM, its founder, Thomas Watson, recorded his values on paper and preached those beliefs to every employee. Each customer he served knew Watson was a living testament of his profound, yet simple values. They were:

1. The individual must be respected.
2. The customer must be given the best possible service.
3. Excellence and superior performance must be pursued.

Watson's son, Thomas Watson, Jr., reaffirmed the importance of his father's commitment to a governing code of behavior. He wrote:

"Consider any great organization that has lasted over the years, and I think you will find that it owed its resilience not to its form of organization or administrative skill, but to the power of what we call beliefs and the appeal these beliefs provide. This, then, is my thesis: I firmly believe that any organization, in order to achieve success, must have a sound set of beliefs on which it premises all its policies and actions. Next, I believe that the most important single factor in the corporate success is faithful adherence to those beliefs. And finally, I believe that if an organization is to meet the challenges of a changing world, it must be prepared to change everything about itself except those beliefs as it moves through corporate life." ◆

News Notes

LESA MEETING: LESA/IFPTE, Local 28, will hold its next monthly membership meeting on Wednesday, August 10, at noon in the Employee Center, .

WOMEN RETIREE LUNCHEON: The next luncheon for Lewis/Glenn female retirees will be Thursday, August 18, noon, at Clementine's, (Garden Room, on the first floor), 8092 Columbia Road, Olmsted Falls. For more information, contact Mary Anne Mulroy at 440–331–3408.

THIRD SATURDAY OFFSITE: Glenn's Visitor Center (VC) is taking their Third Saturday August 20th event on the road to the Schuele Planetarium at the Lake Erie Nature & Science Center (LENSC) in Bay Village. "All Star Day" will include Twinkle Tots and other programs in the planetarium, the NASA Environmental Aero Bus; Mars Rover Update and Space Exploration presentations by NASA personnel, solar and nighttime telescope viewing with the Cuyahoga Astronomical Association; the Picture Yourself in Space photo booth; kids make and take crafts; and much more. LENSC hours are 10 a.m. to 5 p.m. with outdoor telescope viewing until 11 p.m. The event is free.

AFGE MEETING: AFGE Local 2128 will hold its next monthly membership meeting on Wednesday, September 7, at 5 p.m. at Denny's Restaurant, 25912 Lorain Road, North Olmsted. All members are encouraged to attend.

IEMP TOWN HALL: The Integrated Enterprise Management Program (IEMP, formerly known as IFMP), will hold a meeting on September 8 as a follow up to the August IEMP Town Hall meeting. The follow up will provide further details of the changes in the IEMP system. For further information, contact Natalie Pastorin, 216–433–2234.

Community Outreach

Here are a few upcoming events where Glenn will have a presence in the community.

September 1 through 4: **Ingenuity Festival**, Cleveland Public Square and Euclid Avenue. The festival will showcase Cleveland-area artists, arts groups, and high-tech innovations through 200 events involving 70 organizations. To volunteer to staff the Glenn exhibit, contact David DeFelice at 216–433–6186.

September 3 through 5: **Cleveland National Air Show**, Burke Lakefront Airport. NASA exhibits inform visitors of current and developing technologies. Those interested in volunteering at the Glenn tent may call Orlando Thompson at 216–433–3642.

2005 NASA Honor Awards

Continued from page 3

Debashis Sadhukhan
In recognition of outstanding efforts in making significant engineering contributions to the NASA Glenn Research Center by improving the safety and reliability of the Central Process Systems for aeronautical research at the Center

Ronald W. Sepesi
For innovation and excellence in meeting the service and construction needs of NASA Glenn Research Center

Mary F. Wadel
For significant and sustained performance in project management, leadership, and advocacy towards the successful development of aircraft icing technologies

Exceptional Technology Achievement Medal

William V. Meyer
For novel and innovative advances in laser light scattering technology enabling a number of highly successful spaceflight experiments

Dr. Mark P. Wernet
For sustained, exceptional, and innovative scientific advancements in optical diagnostic techniques and supporting technologies for turbomachinery, aeroacoustics, and aeropropulsion research

Exceptional Scientific Achievement Medal

Dr. Nicholas Leventis
For groundbreaking research in the development of polymer cross-linked aerogels

Outstanding Leadership Medal

Harry A. Cikanek
For continued and recognized leadership in the field of rocket propulsion

Leslie A. Greenbauer-Seng
For a unique combination of outstanding leadership skills in technical management and human resources

Dennis L. Huff
For exemplary leadership and integrity in directing, organizing, planning, and implementing NASA's acoustics and structures research

Public Service Medal

Ramaswamy Balasubramaniam
For outstanding and internationally recognized research contributions in the area of motion of bubbles and drops in microgravity

Kevin M. Lambert
For outstanding performance on radiofrequency antenna metrology and characterization at NASA Glenn Research Center in support of NASA's Space Communications Program

Group Achievement Awards
8 teams
359 individuls

Community and Media Relations' Columbia Mishap Team
For working above and beyond the call of duty during the STS–107 disaster, a truly traumatic time for NASA

Disability Awareness Advisory Group
For excellence in advocacy for disability awareness

Incident Reporting Information System (IRIS) Web-Based Enhancement Team
For exceptional support in the design, build, and NASA Agency deployment of a new, Web-based enhanced Incident Reporting Information System

Parametric Inlet Fabrication and Installation Team
For the fabrication, installation, and testing of a prototype mach 2.35 external compression supersonic inlet across five NASA centers to meet the wind tunnel testing schedule

Glenn Pollution Prevention Team
For improving the Center's safety, health, and environmental performance by reducing hazardous materials, improving recycling, and using alternative fuels


Dr. Envia


Grady


Grantier


Greenbauer-Seng


Horvat


Huff


Jaskowiak


Lambert


Lee


Leventis


Melis

2005 NASA Honor Awards


Meyer


Sadhukhan


Sepesi


Shaw


Smith


Dr. Steinetz


Wadel


Dr. Wernet

Process-Based Mission Assurance (PBMA) CAIB Support Team
For the outstanding achievement of rapidly implementing a highly secure, Web-based capability for documentation, file exchange, and electronic communication in support of the Columbia Accident Investigation Board (CAIB)

Glenn Shuttle Actuators Investigation Team
For exceptional team effort in providing critical technical and experimental support in the investigation and resolution of space shuttle actuator Return to Flight issues

Glenn STS–107 Data Recovery Team
In recognition of significant contributions to the STS–107 data recovery effort and input to the Columbia Accident Investigation Board

Presidential Rank

Dr. Julian M. Earls
Jose M. Vega

For sustained accomplishment in management of programs of the United States Government and for noteworthy achievement of quality and efficiency in the public service


Dr. Earls


Vega

Distinguished Publication Award

Dr. Anthony J. Strazisar, Dr. Michelle M. Bright, Scott A. Thorp, Dennis E. Culley, and Dr. Kenneth L. Suder

In recognition of the excellence and value of their publication entitled "Compressor Stall Control Through Endwall Recirculation"

Distinguished Publication Award team, left to right, Dr. Suder, Dr. Bright, Dr. Strazisar, Thorp, and Culley.

Career Service Awards

Sixty-Year Service Award
Richard H. Cavicchi
Propulsion Systems Division

Fifty-Year Service Award
Bernhard H. Anderson
Propulsion Systems Division

Forty-Five-Year Service Award
Donald L. Chubb
Power and Electrical Propulsion Division
William F. Ford
Computing Science Division
Lawrence A. McFarland
Information Systems Division
Louis A. Povinelli
Research and Technology Directorate
Del B. Zatroch
Engineering Systems Division

Forty-Year Service Award
Gustave C. Fralick
Instrumentation and Controls Division
Richard P. Finn
Facilities Division
Kenneth W. Guinta
Engineering Systems Division
Michael D. Lee
Research Testing Division
Michael Lupton
Information Systems Division
Gloria J. O'Donnell
Materials Division
John E. Rohde
Aeronautics Division
Dennis M. Thompson
Research Testing Division

John Glenn's visit inspires all ages

Continued from page 1

inspired them to pursue careers in science and engineering. A veteran of the Mercury-6 (1962) and STS–95 (1998) missions, Senator Glenn shared his views on NASA's research, technology, and mission.

C-2005-959 Photo by Marvin Smith

Left to right: NASA Glenn Academy research associate Katrina Schweiker, Sen. Glenn, Annie Glenn, Deputy Director Rich Christiansen, and Center Director Dr. Julian Earls join in the dedication ceremony of the John H. Glenn Conference Room.

Later in the day, the senator answered a variety of questions from students and teachers in the standing-room-only Administration Building Auditorium, and made himself accessible to the students, spending extra time talking with them one on one after the presentation. He applauded the students on their interest in math and science and reiterated the need for the country to emphasize careers in these areas.

"It's [math and science] harder work than some topics in school, but it can be exciting as well," he said. "We won't maintain our status as the best Nation in the world if we don't stress these areas."

Senator Glenn's visit also included an informal discussion with senior management and the dedication of the Senator John H. Glenn Administration Building Conference Room. ◆

Internship offers unique experience

BY DOREEN B. ZUDELL

Cleveland Institute of Art graduate Nick Hawes can attest to the value of Glenn's summer internship programs. As a medical illustration major, Hawes needed an internship where he could utilize and expand on his skill in scientific illustration. He found that opportunity at Glenn.

"The people I worked with and the opportunities to apply what I had learned in school to real-life applications were invaluable," said Hawes. "I don't believe I would have gotten half the experience somewhere else."

During the summers of 2003 and 2004, Hawes participated in the Lewis' Educational and Research Collaborative Internship Program (LERCIP) supporting the Acoustical Testing Laboratory (ATL) and the Imaging Technology Center (ITC).

"Although our computer-based, hearing conservation training products are highly acclaimed and used throughout the world, we wanted to improve our products by including medically accurate illustrations," explained ATL Manager Beth Cooper. "Nick provided the high-quality, custom medical illustrations we needed."

As part of Hawes' senior thesis, he developed educational graphics that depict the anatomical effects of noise-induced hearing loss in the inner ear. These illustrations are currently used at NASA Johnson to provide hearing conservation-related training for flight crews and flight medicine professionals.

Hawes also expanded his skills by helping to produce multimedia projects under the direction of Glenn's ITC. "Nick's artistic ability and his openness to learning and improving skills in areas such as photo retouching and animation made him a valuable addition to our production team," said Video and Multimedia Project Supervisor Emery Adanich, RSIS/ITC, Logistics and Technical Information Division.

Although Hawes' internship ended last summer, he is currently working under contract to provide specialized medical illustrations to the ATL. He is also taking classes toward an advanced degree with the goal of entering medical school. ◆

C-2005-956 Photo by Marvin Smith

Hawes is pictured standing next to his hearing-conservation-related illustrations on display at NASA Johnson.

Summer 2005 interns

Thanks to Glenn mentors and management, the Lewis Educational and Research Collaborative Internship Program is hosting 97 college interns (3 teachers, 19 NASA scholars, and 75 college students) and 57 high school interns (26 SHARP, 21 NASA Plus, and 10 Engineering Technology) this summer. This continues to show Glenn's commitment to students and education!

Achieving a diverse, model workplace

BY S. JENISE VERIS

Left to right: Florida A&M University students Charlie Williams III, Sahid Smith, Syndi Credle, Francesco Ortiz, and LeTarrie Teemer, set up their research presentations.

Regardless of what Glenn's workforce will look like in the future, one constant remains the same: a commitment toward ensuring a model workplace.

The Center's focus on diversity was ever-present during the 12th annual HBCU/OMU Research Conference, held at the OAI on July 13 and 14, when students and faculty showcased the high caliber of Glenn-sponsored research conducted at eight of the partnering institutions.

Glenn's research partnerships with the Nation's Historically Black College and Universities (HBCUs), Hispanic Serving Institutions (HSIs), and Other Minority Universities (OMUs) are an integral part of an overall strategy to expand the Center's capabilities and develop a diverse workforce.

"Fostering partnerships with HBCUs, HSIs, and OMUs ensures the Agency's goals of diversity and enables the preservation of strong leadership and the technical foundation forged by many years of extraordinary space and aeronautical advances," said Center Director Dr. Julian Earls. "Our Agency and America benefit from the innovation that occurs when people work together who have different experiences and perspectives."

During the conference, poster sessions and presentations showcased research that was conducted by students, many of whom are part of the pipeline of young, diverse talent generated through Glenn-developed educational programs and summer internships.

An example, the Science, Engineering, Mathematics, and Aerospace Academy (SEMAA) has become a feeder for the NASA SHARP (Summer High School Apprenticeship Research Program) and the source of 24 partnerships at colleges, museums, and science centers across the country to encourage the traditionally underserved populations to pursue NASA-related careers in science, technology, engineering, or mathematics. Founded by Glenn and Cuyahoga Community College in 1993, SEMAA was cited for exemplary educational programming that meets the Agency's six criteria for future program funding: customer focus, NASA-specific content, pipeline, diversity, partnership and sustainability.

"Our total research and development grant awards to HBCUs and OMUs continue to exceed our performance goal by a substantial margin," said Dr. Sunil Dutta, technical advisor and program manager for HBCUs and OMUs and Small Disadvantaged Businesses. "Fifteen different institutions shared a total of $2,792,642 in fiscal year 2004, alone."

Charles Scales, Director of Center Operations, affirmed Glenn's goals for future partnerships. "While a number of issues remain concerning NASA's future workforce and budget, Glenn's commitment to HBCUs, HSIs, and OMUs remains steadfast." ◆

Employee assistance at your fingertips

Are problems in your personal or professional life making it hard to focus at work? The Occupational Health Branch announces Ease@Work, Glenn's new Employee Assistance Program provider, which offers short-term counseling to Glenn civil servants and their families that can help resolve problems before they escalate.

The confidential and voluntary program service, available 24 hours a day, 7 days a week, provides trained licensed counselors who address challenges such as depression, stress, marital issues, substance abuse, and anger management. It also provides referral services to community, childcare, or elderly services. The first three visits with a counselor are free.

Glenn civil servants can request counseling by logging onto the Web site at *www.easeatwork.com*, then type in User Name: NASAGRC, Password: EASE. Employees can also call 216–241–3273 or 800–521–3273 to schedule an appointment. Additionally, employees can access Ease@Work's online newsletter, which contains helpful information on a wide variety of health- and work-related issues.

In the near future, an onsite counselor will be located in Glenn's Employee Center to address concerns on Lab or at a nearby location. Tony Christian, Environmental Management Office, is Glenn's Ease@Work contact. ◆

Job Fair aids recruiting

The Cooperative (Co-op) Education Program Job Fair is one tool Glenn uses to recruit a diverse workforce. Holding the 4th Annual Job Fair during the HBCU/OMUResearch Conference enables college interns for whom Glenn has made an investment in, whether through educational programs, training, or research grants, to participate.

"Co-ops gain long-term, paid, practical experience while continuing their academic programs," said Lynda Glover, coordinator for Glenn's Co-op Program. "Our internships attract a diverse population of students who could become our future workforce leaders."

People

Awards and Patents

The American Institute of Aeronautics and Astronautics (AIAA) recently presented **Eric Pencil**, Electric Propulsion Branch, an AIAA Special Service plaque "for outstanding commitment to the aerospace profession and in recognition of your many contributions to the Northern Ohio Section of AIAA."

Pencil

Amy Mielke and **Dr. Mark Wernet**, Optical Instrumentation and NDE Branch, along with Dr. Jaikrishnan Kadambi of Case Western Reserve University, have been awarded U.S. Patent No. 6,879,708 for a planar particle/droplet size measurement technique using digital particle imaging velocimetry (PIV) image data. Their new technique, which is applicable to combustion research or microgravity flow, was developed through NASA's Graduate Student Researchers Program as Mielke's master's thesis project.

Mielke

Dr. Wernet

"An Overview of the Results From the 30,000-Hour Life Test of Deep Space 1 Flight Spare Engine" merited the American Institute of Aeronautics and Astronautics (AIAA) Electric Propulsion Technical Committee's 2004 Best Paper Award. Glenn's **Bruce Banks** and **Kim de Groh**, Electro-Physics Branch, collaborated with Tina Karniotis (formerly of QSS), and Anita Sengupta, John Brophy, John Anderson, and Charles Garner from NASA's Jet Propulsion Laboratory, on the paper.

Banks

de Groh

The 2005 NASA Student Involvement Program awarded **Dr. Sai Raj's** home school students a First Place Regional Award for their entry entitled "Is the winter snow cover in Ohio influenced by the Indian monsoons?" under the category "Watching Earth Change." Raj, Durability and Protective Coatings Branch, coached his daughter, Divya, and two of her sixth-grade classmates to develop a broader interest in science beyond the curriculum offered at their school. Their project involved obtaining, studying, and correlating satellite data and variations in sea surface temperatures of Ohio's annual snowfall and the annual Indian summer monsoons from the 1800s to 2000.

Pictured, left to right, is Mahima Venkatesh, Hilary Rizk, Divya Raj, and Dr. Raj.

Dr. Ali Abdul-Aziz, CSU/Optical Instrumentation and NDE Branch, was recently elected a Fellow by the American Society of Mechanical Engineers in recognition of his "exceptional engineering achievements and contributions to the engineering profession." Abdul-Aziz, who is also a licensed professional engineer in the State of Ohio, has authored/co-authored over 90 technical publications. His work focuses on research in the areas of materials development, finite element, heat transfer, structural mechanics, experimental fatigue testing and non destructive evaluation techniques.

Dr. Abdul-Aziz

Correction

Szabo Award winner **David R. Root**, (ZINT) Mission Operations and Integration Projects Office, was incorrectly identified as a member of the Central Process Systems Engineering Branch in the July issue.

Kudos to Garrett Morgan

The NASA Glenn Garrett Morgan Commercialization Initiative, a technology transfer and commercialization program sponsored by Glenn, won the 2005 Minority Business Development recognition award by Ohio Governor Bob Taft on June 7.

AeroSpace Frontiers is an official publication of Glenn Research Center, National Aeronautics and Space Administration. It is published the first Friday of each month by the Community and Media Relations Office in the interest of the Glenn workforce, retirees, Government officials, business leaders, and the general public. Its circulation is approximately 6700.

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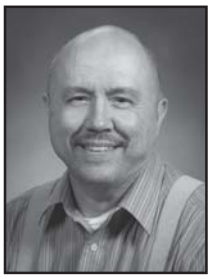
DEADLINES: News items and brief announcements for publication in the September issue is noon, August 12. The deadline for the October issue is noon, September 16. Submit contributions to the editor via e-mail, doreen.zudell@grc.nasa.gov, fax 216–433–8143, phone 216–433–5317 or 216–433–2888, or MS 3–11. Ideas for news stories are welcome but will be published as space allows. View us online at http://AeroSpaceFrontiers.grc.nasa.gov.

WINNER 2004 APEX AWARDS FOR PUBLICATION EXCELLENCE

Retirements



Schuett

Dr. Storti

Henry Schuett, Agency Spectrum Management Office, retired on May 31, 2005, with 30 years of Federal service, including 16 with NASA.

Dr. Janet Storti, Educational Programs Office, retired on June 30, 2005, with 24 1/2 years of Federal service, including 14 1/2 with NASA.

In Appreciation

I want to thank everyone who wished me well upon my retirement at the end of May. I truly appreciate and treasure all of the e-mails, phone calls, and people who stopped by to say goodbye. I was touched and overwhelmed by the wonderful retirement cake and coffee. Working at NASA Lewis/Glenn was an amazing experience for me. I was given so many opportunities to learn and grow as a librarian, both by people on the Library staff and by those who came to the Library seeking help with finding information. It was a one-of-a-kind, never-to-be-forgotten exciting 22+ years! Thank you! **—Melanie Long**

Thank you, all, for the flowers, cards, donations, and kind words. My family and I are grateful to have had so many people thinking of us during my mother's brief illness and sudden passing. Now, I want all you people to stop bothering me and get back to work! **—Pete Bonacuse**

I would like to thank all the folks here at Glenn who sent me words of sympathy and support during the period surrounding my father's death. I am truly touched by your concern and I will always remember it fondly. Thank you also for your donations to the San Diego Hospice in my father's name. I know it will be used for a good cause. **—Mark Potapczuk**

Tour Glenn facilities each month

Glenn is taking the public beyond the Visitor Center (VC) into some of its most exciting research facilities. Every first Saturday of the month, visitors can tour a selected facility to gain an up-close look at some of the Center's world-class facilities.

The Propulsion Systems Laboratory is one of four remaining tour facilities.

Brenda Morgan, BTAS/VC tour facilitator, said monthly guided tours are conducted every hour between 10:30 a.m. and 1:30 p.m. and include a Center overview, security briefing at the VC, and a driving tour around the Center prior to the facility highlight. The tour culminates at the VC with a briefing on the International Space Station.

"This is the first time since September 11, 2001, that we've offered facility tours on a regular basis," Morgan explained, "and the public's response is overwhelming. They're learning a lot about what we do here."

Facility tours, which began in May, will run through November 2005. Remaining tours include August 6, Aero-Acoustic Propulsion Laboratory; September 3, Electric Propulsion Laboratory; October 1, Zero Gravity Research Facility; and November 5, Propulsion Systems Laboratory.

Tours require registration and are only open to U.S. citizens. For further information, call 216–433–9653, or http://www.nasa.gov/centers/glenn/events/tours.html. ◆

Our sincere apologies

We extend our sincere apologies to retirees Ralph Faigen and Frank Klemensic who mistakenly were listed in the "In Memory" column of the July issue of *AeroSpace Frontiers*. They are alive and well! Safeguards have been put in place to ensure that this type of error does not reoccur.

In Memory

Reagan respected for contributions in materials engineering

Reagan

John Reagan, chief of the Glenn Quality Management Office (QMO), passed away on June 22. He was a 30-year veteran of the Agency and Chief of QMO for the last 9 years. Reagan was a respected member of the NASA materials engineering community and the NASA "Certifying Official" for materials usage on Glenn space flight programs.

Leo Doubler, 89, who retired in 1976 with 33 years of Federal service, recently died. Doubler served as an electronic equipment inspector prior to retirement.

Frank Dunn, 83, who retired in 1984 after 42 years of Federal service, recently died. Dunn served as a research facilities general foreman prior to retirement.

Andrew Sabo, 89, who retired in 1979 after 23 years of service, recently died. Sabo served as an aerospace services operator prior to retirement.

Robert Usher, 81, who retired in 1980 with 29 years of service, recently died. Usher served as chief of the Training and Development Office prior to retirement.

CMR system ensures consistency throughout NASA

BY DOREEN B. ZUDELL

If you produce brochures, lithographs, award certificates, posters, flyers, and other communications material, you need to know about NASA's Communications Material Review (CMR) process.

The CMR process is a Headquarters-mandated initiative released earlier this year to aid in coordinating the Agency's overall messages by implementing unifying elements, such as the NASA insignia and tag line, in all communications material.

"Whether the intended audience is internal, external, or both, any employee who produces NASA-funded communications material needs to submit the item through the CMR process before distribution," explained Glenn's CMR point of contact Sharon McCray, Facilities Division.

The CMR system provides an online method to review and approve material. In addition, it creates a database that supplies metrics necessary for future planning. The Web site (internal) is http://communications.nasa.gov/portal/site/osc.

Material may be submitted in the Concept, Design, or Ready for Distribution phase. The CMR cycle takes about 14 days for the three-tiered team (Center level, Mission or Functional Office level, and Agency level) to evaluate the material for visual compliance, McCray said. The online self-compliance checklist includes historical information, visual standards, and submittal information.

Since the launch of the CMR initiative, Glenn's Publishing Services has assisted customers in determining graphic design requirements that comply with the CMR guidelines. Customers can inquire about Publishing Services support by calling 216–433–3207.

An interim style guide, which includes general information on visual standards, such as typestyle, colors, and the placement of the NASA insignia, is posted on the CMR Web site.

"In the near future, an expanded style guide will offer more in-depth samples of items such as flyers, brochures, and PowerPoint presentations to aid in developing communications material," McCray said. "Also on the horizon are templates of approved pieces that can be easily adapted to a variety of material." ◆

Exceptions to the rule

The following communications material does not need to go through the CMR process (although they may be subject to other reviews):

- Internal NASA communications material, e.g., business letters and memos
- Technical papers or poster sessions intended for a technical audience, e.g., NASA-numbered reports or papers/publications submitted to a peer review journal
- Joint products or publications required by law or covered by Space Act Agreements
- Press releases and NASA TV video files

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